

REMARKS

Claims 1-5 remain in the application. In view of the following remarks, Applicant respectfully requests withdrawal of the rejections and forwarding of the application on to issuance.

§ 103 Claim Rejections

Claims 1 and 2 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,878,319 to Itoh (hereinafter, "Itoh") in view of U.S. Patent No. 5,971,388 to Hattori (hereinafter, "Hattori").

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Itoh in view of Hattori in further view of U.S. Patent No. 5,441,247 to Qualliam (hereinafter, "Qualliam").

Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Itoh in view of Hattori in further view of U.S. Patent No. 4,791,451 to Hirose (hereinafter, "Hirose").

Claims 1-5

Claim 1 has been amended, and as amended recites an image scanner comprising [emphasis added]:

- a single contact glass disposed on a main body, the contact glass having a first range through which a first original document is passed to be scanned, and a second range over which a second original document is positioned to be scanned, the second range including the first range;
- an image sensor scanning the first original document at a fixed position in the first range and scanning the second original document while the image sensor moves through the second range;

- an automatic document feeder arranged on the main body covering the contact glass and being openable to expose the contact glass, the automatic document feeder conveying the first original document through a feed path to the fixed position and ejecting the first original document through an ejecting path from the fixed position; and
- a single detector adapted to detect when the automatic document feeder is opened and to detect a leading edge of the first original document whenever a document page is conveyed along the feed path to the first fixed position.

In rejecting this claim, the Office notes that Itoh does not teach a *detector adapted to detect when the automatic document feeder is opened and to detect a leading edge* of the first original document whenever a document page is conveyed along the feed path to the first fixed position. Applicant agrees. The Office then argues that Hattori teaches of “a detector 18 that detects when the document cover is opened and when a leading edge has been detected.”

This claim has been amended to clarify the fact that a *single detector* is used to detect when the automatic document feeder is opened *and* to detect a leading edge of the first original document. The basis for this amendment is found on page 7 of the specification:

The present invention is embodied in a single plate flatbed scanner including an automatic document feeder (ADF) which employs a single sensor to detect both a document leading edge for an ADF fed document and the opening of the flat plate cover. At least one sensor is eliminated thus reducing the number of components and the cost of manufacture while continuing to provide desired functionality previously requiring two or more sensors.

In light of the current amendments, the Applicant respectfully traverses the Office's rejections because Hattori does not use a single detector.

In the Office's last office action, the Office argued that the detector, which detects when the ADF is opened, can be found in Col 3 Lines 59-67 and the detector for the leading edge of the original document is found in Col 3 Lines 37-51. The detector which the Office claims is able to detect the leading edge of the original document, described in column 3, lines 37-51 of Hattori, is reproduced below:

An original document detecting sensor 16 is provided at the original setting stand 4. This sensor detects an original document P on the original setting stand 4 and outputs a signal to a controller 17 (illustrated in FIG. 3) based on this detection. The document detecting sensor 16 can also be constructed to detect a size of the sheets of the original document P. In order to detect a size of the original sheets a plurality of sensors corresponding to different sizes can be utilized. Depending on which sensors are covered by the stack of originals, the size of the originals can be determined. The sensors to detect the size can be arranged either along the length or the width of the tray. *Further, a register sensor 18 monitors the feeding path 11 to detect forward rear ends of the sheets of the original document P and to output a signal to the controller 17 based on this detection.*

As the above excerpt indicates, Hattori neither discloses nor suggests that register sensor 18 is adapted to detect a leading edge of the original document *and* to detect when the automatic document feeder is opened. In fact, in the next paragraph of its disclosure, Hattori describes a *different* component, microswitch 20, which detects whether a side cover is opened or closed. This detector which the Office claims is able to detect when the ADF is opened, described in column 3, lines 59-67 of Hattori, is reproduced below:

A side cover 19 is provided at a side of a body 1a of the original feeding device 1. By opening the side cover 19, as

illustrated in FIG. 1B, it is possible to gain access to and clear a paper jam which has occurred in the feeding path 11. The side cover can be constructed to form at least part of the feeding path 11. As illustrated in FIG. 1B, when the side cover 19 is opened, one of the pair of conveying rollers 10 moves so that the conveying roller 10 separate from each other. *There is a microswitch 20 which detects whether the side cover 19 is opened or closed.*

As is apparent from these two excerpts, Hattori does not teach or suggest a single detector adapted *to detect when the automatic document feeder is opened and to detect a leading edge* of the first original document whenever a document page is conveyed along the feed path to the first fixed position. In fact, Hattori teaches *directly away* from Applicant's claimed subject matter by specifically requiring *multiple* components rather than one detector that performs both functions. For at least this reason, this claim is allowable.

In addition, the Office has failed to establish a *prima facie* case of obviousness for at least the following reason. In arguing that these two references are combinable to render the subject matter of this claim obvious, the Office asserts, as a motivation to combine the references, that "Itoh's image scanning apparatus would easily be modified to include Hattori's detector as means of informing the user of any problems that occur." Essentially then, the Office's position with regard to the combinability of these references can be distilled down to this: It would be obvious to combine these references because they are easily combinable. Applicant respectfully submits that this motivation falls far short of mark insofar as establishing a *prima facie* case of obviousness. Specifically, the Office has failed to articulate a specific reason, stated with particularity, why the skilled artisan would be led to combine these references. Accordingly, for at least this additional reason, this claim is allowable.

Claims 2-5 depend either directly or indirectly from claim 1 and are allowable as depending from an allowable base claim. These claims are also

allowable for their own recited features which, in combination with those recited in claim 1, are neither disclosed nor taught by the references of record, either singly or in combination with one another. Further, given the allowability of these claims, the addition of the Qualliam and Hirose references in the rejection of claims 3-4 and 5, respectively, is not seen to add anything of significance.

Conclusion

Claims 1-5 are in condition for allowance. Accordingly, Applicant requests a Notice of Allowability be issued forthwith. If the Office's next anticipated action is to be anything other than issuance of a Notice of Allowability, Applicant respectfully requests a telephone call for the purpose of scheduling an interview.

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Respectfully submitted,

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